



[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2014-0583; Directorate Identifier 2013-NM-130-AD]

RIN 2120-AA64

Airworthiness Directives; Bombardier, Inc. Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: We propose to adopt a new airworthiness directive (AD) for certain Bombardier, Inc. Model DHC-8-400 series airplanes. This proposed AD was prompted by reports of chafing of the fuel lines due to contact with the surrounding structures in the fuel tank. This proposed AD would require replacing and modifying fuel lines, revising the maintenance or inspection program, as applicable, to include critical design configuration control limitations (CDCCL) and airworthiness limitation (AWL) items, and, for certain airplanes removing certain clamps and mounting hardware. We are proposing this AD to prevent chafing of the fuel lines in the fuel tank, which could result in potential ignition sources in the fuel tank in the event of a lightning strike and consequent fire or explosion.

DATES: We must receive comments on this proposed AD by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: You may send comments by any of the following methods:

- Federal eRulemaking Portal: Go to <http://www.regulations.gov>. Follow the instructions for submitting comments.

- Fax: (202) 493-2251.
- Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590.
- Hand Delivery: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For service information identified in this proposed AD, contact Bombardier, Inc., Q-Series Technical Help Desk, 123 Garratt Boulevard, Toronto, Ontario M3K 1Y5, Canada; telephone 416-375-4000; fax 416-375-4539; email thd.qseries@aero.bombardier.com; Internet <http://www.bombardier.com>. You may view this referenced service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, WA. For information on the availability of this material at the FAA, call 425-227-1221.

Examining the AD Docket

You may examine the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2014-0583; or in person at the Docket Management Facility between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this proposed AD, the regulatory evaluation, any comments received, and other information. The street address for the Docket Operations office (telephone (800) 647-5527) is in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

FOR FURTHER INFORMATION CONTACT: Kent Fredrickson, Aerospace Engineer, Propulsion and Services Branch, ANE-173, FAA, New York Aircraft Certification Office, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; telephone 516-228-7364; fax 516-794-5531.

SUPPLEMENTARY INFORMATION:

Comments Invited

We invite you to send any written relevant data, views, or arguments about this proposed AD. Send your comments to an address listed under the ADDRESSES section. Include “Docket No. FAA-2014-0583; Directorate Identifier 2013-NM-130-AD” at the beginning of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of this proposed AD. We will consider all comments received by the closing date and may amend this proposed AD based on those comments.

We will post all comments we receive, without change, to <http://www.regulations.gov>, including any personal information you provide. We will also post a report summarizing each substantive verbal contact we receive about this proposed AD.

Discussion

Transport Canada Civil Aviation (TCCA), which is the aviation authority for Canada, has issued Canadian Airworthiness Directive CF-2013-09R1, dated May 28, 2013 (referred to after this as the Mandatory Continuing Airworthiness Information, or “the MCAI”), to correct an unsafe condition for the specified products. The MCAI states:

Reports from operators have revealed a number of instances of chafing of the fuel lines due to contact with the surrounding structures in the fuel tank. An internal audit conducted by Bombardier revealed a number of locations in the fuel tank where low clearances were noted between fuel lines and the surrounding structure. Low clearances between fuel lines and the surrounding structures may result in ignition sources in the fuel tank in the event of a lightning strike, creating an unacceptable level of safety.

Bombardier had issued Service Bulletin (SB) 84-28-09 to introduce new fuel line assemblies that include new fuel lines and Teflon protective sleeves, and SBs 84-28-10 and 84-28-13 to remove unnecessary hardware in the wing fuel tanks, in order to eliminate potential fouling conditions on the affected fuel lines.

Upon an operator's incorporation of SB 84-28-09, an additional fouling condition was identified on the post-modification fuel lines. In order to address this concern on the aeroplane, Bombardier has issued SBs 84-28-14 and 84-28-15, along with ModSum IS4Q2800012 to rectify this problem.

This [Canadian] AD mandates the replacement of fuel lines and the installation of fuel line Teflon protective sleeves. In addition, the fuel line Teflon protective sleeves have been added to the Critical Design Configuration Control Limitations (CDCCL) along with the introduction of associated Fuel System Limitations tasks, to ensure integrity of the new assembly.

Since the original issue of this [Canadian] AD, it was found that there were editorial errors in Parts IB and II A of this [Canadian] AD. In addition, the Temporary Revisions (TR) Airworthiness Limitation Items (ALI)-111/-112 referenced in Parts III and IV of this AD had been superseded by later revisions. This [Canadian] AD is revised to correct the editorial errors and accept the later TR approved by Transport Canada.

You may examine the MCAI in the AD docket on the Internet at

<http://www.regulations.gov> by searching for and locating Docket No. FAA-2014-0583.

Relevant Service Information

Bombardier has issued the following service information:

- Service Bulletin 84-28-09, Revision D, dated December 21, 2012;
- Service Bulletin 84-28-10, Revision B, dated March 19, 2013;
- Service Bulletin 84-28-13, dated August 17, 2012;
- Service Bulletin 84-28-14, dated August 15, 2012;
- Service Bulletin 84-28-15, dated August 15, 2012;
- Temporary Revision ALI-111, dated January 11, 2011, to Section 4-1,

“Fuel System Limitations,” of Part 2, “Airworthiness Limitation Items,” of the Airworthiness Limitation Items section of Bombardier Q400 Dash 8 Maintenance Requirements Manual PSM 1-84-7; and

- Temporary Revision ALI-112, dated January 11, 2011, to Section 5-1, “Critical Design Configuration Control Limitations,” of Part 2, “Airworthiness Limitation Items,” of the Airworthiness Limitation Items section of Bombardier Q400 Dash 8 Maintenance Requirements Manual PSM 1-84-7.

The actions described in this service information are intended to correct the unsafe condition identified in the MCAI.

FAA’s Determination and Requirements of this Proposed AD

This product has been approved by the aviation authority of another country, and is approved for operation in the United States. Pursuant to our bilateral agreement with the State of Design Authority, we have been notified of the unsafe condition described in the MCAI and service information referenced above. We are proposing this AD because we evaluated all pertinent information and determined an unsafe condition exists and is likely to exist or develop on other products of the same type design.

Compliance with the Required Actions and Sections of Maintenance Documents

This proposed AD would require revisions to certain operator maintenance documents to include new actions (e.g., inspections) and Critical Design Configuration Control Limitations (CDCCLs). Compliance with these actions and CDCCLs is required by section 91.403(c) of the Federal Aviation Regulations (14 CFR 91.403(c)). For airplanes that have been previously modified, altered, or repaired in the areas addressed by these inspections, an operator might not be able to accomplish the inspections described in the revisions. In this situation, to comply with 14 CFR 91.403(c), the operator must request approval of an alternative method of compliance (AMOC) in accordance with the provisions of paragraph (o)(1) of this proposed AD. The request should include a description of changes to the required inspections that will ensure the continued operational safety of the airplane.

“Contacting the Manufacturer” Paragraph in this Proposed AD

Since late 2006, we have included a standard paragraph titled “Airworthy Product” in all MCAI ADs in which the FAA develops an AD based on a foreign authority’s AD.

The MCAI or referenced service information in an FAA AD often directs the owner/operator to contact the manufacturer for corrective actions, such as a repair. Briefly, the Airworthy Product paragraph allowed owners/operators to use corrective actions provided by the manufacturer if those actions were FAA-approved. In addition, the paragraph stated that any actions approved by the State of Design Authority (or its delegated agent) are considered to be FAA-approved.

In an NPRM having Directorate Identifier 2012-NM-101-AD (78 FR 78285, December 26, 2013), we proposed to prevent the use of repairs that were not specifically developed to correct the unsafe condition, by requiring that the repair approval provided by the State of Design Authority or its delegated agent specifically refer to the FAA AD. This change was intended to clarify the method of compliance and to provide operators with better visibility of repairs that are specifically developed and approved to correct the unsafe condition. In addition, we proposed to change the phrase “its delegated agent” to include a design approval holder (DAH) with State of Design Authority design organization approval (DOA), as applicable, to refer to a DAH authorized to approve required repairs for the proposed AD.

One commenter to the NPRM having Directorate Identifier 2012-NM-101-AD (78 FR 78285, December 26, 2013) stated the following: “The proposed wording, being specific to repairs, eliminates the interpretation that Airbus messages are acceptable for approving minor deviations (corrective actions) needed during accomplishment of an AD mandated Airbus service bulletin.”

This comment has made the FAA aware that some operators have misunderstood or misinterpreted the Airworthy Product paragraph to allow the owner/operator to use messages provided by the manufacturer as approval of deviations during the accomplishment of an AD-mandated action. The Airworthy Product paragraph does not approve messages or other information provided by the manufacturer for deviations to the requirements of the AD-mandated actions. The Airworthy Product paragraph only addresses the requirement to contact the manufacturer for corrective actions for the

identified unsafe condition and does not cover deviations from other AD requirements. However, deviations to AD-required actions are addressed in 14 CFR 39.17, and anyone may request the approval for an alternative method of compliance to the AD-required actions using the procedures found in 14 CFR 39.19.

To address this misunderstanding and misinterpretation of the Airworthy Product paragraph, we have changed the paragraph and retitled it “Contacting the Manufacturer.” This paragraph now clarifies that for any requirement in this proposed AD to obtain corrective actions from a manufacturer, the actions must be accomplished using a method approved by the FAA, TCCA, or Bombardier, Inc.’s TCCA Design Approval Organization (DAO).

The Contacting the Manufacturer paragraph also clarifies that, if approved by the DAO, the approval must include the DAO-authorized signature. The DAO signature indicates that the data and information contained in the document are TCCA-approved, which is also FAA-approved. Messages and other information provided by the manufacturer that do not contain the DAO-authorized signature approval are not TCCA-approved, unless TCCA directly approves the manufacturer’s message or other information.

This clarification does not remove flexibility previously afforded by the Airworthy Product paragraph. Consistent with long-standing FAA policy, such flexibility was never intended for required actions. This is also consistent with the recommendation of the Airworthiness Directive Implementation Aviation Rulemaking Committee to increase flexibility in complying with ADs by identifying those actions in

manufacturers' service instructions that are "Required for Compliance" with ADs. We continue to work with manufacturers to implement this recommendation. But once we determine that an action is required, any deviation from the requirement must be approved as an alternative method of compliance.

We also have decided not to include a generic reference to either the "delegated agent" or "design approval holder (DAH) with State of Design Authority design organization approval," but instead we have provided the specific delegation approval granted by the State of Design Authority for the DAH throughout this proposed AD.

Costs of Compliance

We estimate that this proposed AD affects 72 airplanes of U.S. registry.

We also estimate that it would take about 80 work-hours per product to comply with the basic requirements of this proposed AD. The average labor rate is \$85 per work-hour. Required parts would cost up to \$2,845 per product. Based on these figures, we estimate the cost of this proposed AD on U.S. operators to be up to \$694,440, or \$9,645 per product.

Authority for this Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. "Subtitle VII: Aviation Programs," describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in "Subtitle VII, Part A, Subpart III, Section 44701: General requirements." Under that section, Congress

charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

We determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify this proposed regulation:

1. Is not a “significant regulatory action” under Executive Order 12866;
2. Is not a “significant rule” under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979);
3. Will not affect intrastate aviation in Alaska; and
4. Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

The Proposed Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 14 CFR part 39 as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. Amend § 39.13 by adding the following new airworthiness directive (AD):

Bombardier, Inc.: Docket No. FAA-2014-0583; Directorate Identifier 2013-NM-130-AD.

(a) Comments Due Date

We must receive comments by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) Affected ADs

None.

(c) Applicability

This AD applies to Bombardier, Inc. Model DHC-8-400, -401, and -402 airplanes, certificated in any category, having serial numbers 4001, and 4003 through 4417 inclusive.

(d) Subject

Air Transport Association (ATA) of America Code 28, Fuel.

(e) Reason

This AD was prompted by reports of chafing of the fuel lines due to contact with the surrounding structures in the fuel tank. We are issuing this AD to prevent chafing of the fuel lines in the fuel tank, which could result in potential ignition sources in the fuel tank in the event of a lightning strike and consequent fire or explosion.

(f) Compliance

Comply with this AD within the compliance times specified, unless already done.

(g) Installation of New Fuel Tube Assemblies

For airplanes having serial numbers 4001, 4003, 4004, 4006, and 4008 through 4417 inclusive: Within 6,000 flight hours or 3 years after the effective date of this AD, whichever occurs first, install new, improved fuel tube assemblies in accordance with the Accomplishment Instructions of the applicable service information identified in paragraphs (g)(1) and (g)(2) of this AD.

(1) For airplanes on which Bombardier Service Bulletin 84-28-09 was incorporated prior to the effective date of this AD, or on which Bombardier Modification Summary (ModSum) 4-113643 was incorporated in production: Bombardier Service Bulletin 84-28-14, dated August 15, 2012.

(2) For airplanes on which Bombardier Service Bulletin 84-28-09 was not incorporated prior to the effective date of this AD, or on which Bombardier ModSum 4-113643 was incorporated in production, use the service information identified in paragraph (g)(2)(i) or (g)(2)(ii) of this AD.

(i) Bombardier Service Bulletin 84-28-09, Revision D, dated December 21, 2012; and Bombardier Service Bulletin 84-28-14, dated August 15, 2012.

(ii) Bombardier Service Bulletin 84-28-15, dated August 15, 2012.

(h) Prior Incorporation of Bombardier ModSum IS4Q2800012

For airplanes on which Bombardier Service Bulletin 84-28-09, and Bombardier ModSum IS4Q2800012 were incorporated before the effective date of this AD; and for airplanes on which Bombardier ModSum 4-113643 was incorporated in production, and Bombardier ModSum IS4Q2800012 was incorporated prior to the effective date of this AD: The requirements of paragraph (g) are not required.

(i) Removal of Clamps and Mounting Hardware

For airplanes having serial numbers 4003 through 4151 inclusive, and 4332 through 4417 inclusive: Within 6,000 flight hours or 3 years after the effective date of this AD, whichever occurs first, do the actions required by paragraphs (i)(1) and (i)(2) of this AD, as applicable.

(1) For airplanes having serial numbers 4003 through 4151 inclusive, on which Bombardier ModSum IS4Q2800010 was incorporated: Inspect for the presence of certain clamps and hardware, and, if present, remove certain clamps and mounting hardware, in accordance with the Accomplishment Instructions of Bombardier Service Bulletin 84-28-10, Revision B, dated March 19, 2013.

(2) For airplanes having serial numbers 4332 through 4417 inclusive: Remove certain clamps and mounting hardware, in accordance with the Accomplishment Instructions of Bombardier Service Bulletin 84-28-13, dated August 17, 2012.

(j) Incorporation of Fuel System Limitations (FSL) Tasks

Within 60 days after the effective date of this AD, revise the maintenance or inspection program, as applicable, to incorporate the information in FSL task numbers 284000-406 and 284000-418 as specified in Bombardier Temporary Revision ALI-111, dated January 11, 2011, to Section 4-1, “Fuel System Limitations,” of Part 2, “Airworthiness Limitation Items,” of the Airworthiness Limitation Items section of the Airworthiness Limitation Items section of Bombardier Q400 Dash 8 Maintenance Requirements Manual PSM 1-84-7. The initial compliance time for Task 284000-418 is within 108 months or 18,000 flight hours after accomplishing the requirements of paragraph (g) of this AD, whichever occurs first, for airplanes identified in paragraphs (g)(1) and (g)(2) of this AD; or, for those airplanes identified in paragraph (h) of this AD, within 108 months or 18,000 flight hours after the incorporation of Bombardier ModSum IS4Q2800012. The maintenance program revision required by this paragraph may be done by inserting a copy of Bombardier Temporary Revision ALI-111, dated January 11, 2011, into the Airworthiness Limitation Items section of Bombardier Q400 Dash 8 Maintenance Requirements Manual PSM 1-84-7. When Bombardier Temporary Revision ALI-111, dated January 11, 2011, has been included in the general revisions of the manual, the general revisions may be inserted into the manual, and this temporary revision may be removed, provided the relevant information in the general revision is identical to that in Bombardier Temporary Revision ALI-111.

(k) Incorporation of Critical Design Configuration Control Limitations (CDCCL) Items

Within 60 days after the effective date of this AD, revise the maintenance or inspection program, as applicable, to incorporate the CDCCL items specified in Bombardier Temporary Revision ALI-112, dated January 11, 2011, to Section 5-1, “Critical Design Configuration Control Limitations,” of Part 2, “Airworthiness Limitation Items,” of Bombardier Q400 Dash 8 Maintenance Requirements Manual PSM 1-84-7. The maintenance program revision required by this paragraph may be done by inserting a copy of Bombardier Temporary Revision ALI-112, dated January 11, 2011, into the Airworthiness Limitation Items section of Bombardier Q400 Dash 8 Maintenance Requirements Manual PSM 1-84-7. When Bombardier Temporary Revision ALI-112, dated January 11, 2011, has been included in the general revisions of the manual, the general revisions may be inserted into the manual, and this temporary revision may be removed, provided the relevant information in the general revision is identical to that in Bombardier Temporary Revision ALI-112.

(l) No Alternative Actions, Intervals, and CDCCLs

After the maintenance or inspection program, as applicable, has been revised as required by paragraphs (j) and (k) of this AD, no alternative actions (e.g., inspections), intervals, or CDCCLs may be used unless the actions, intervals, or CDCCL are approved as an alternative method of compliance (AMOC) in accordance with the procedures specified in paragraph (o)(1) of this AD.

(m) Exception to Certain Service Information

Where the service information, Bombardier Service Bulletin 84-28-09, Revision D, dated December 21, 2012; and Bombardier Service Bulletin 84-28-15, dated

August 15, 2012; specify contacting the manufacturer for corrective action during accomplishment of the actions in those service bulletins: Before further flight, repair the discrepancy using a method approved by the Manager, New York Aircraft Certification Office (ACO), FAA; or Transport Canada Civil Aviation (TCCA); or Bombardier, Inc.'s TCCA Design Approval Organization (DAO). If approved by the DAO, the approval must include the DAO-authorized signature.

(n) Credit for Previous Actions

This paragraph provides credit for actions required by paragraph (i)(1) of this AD, if those actions were performed before the effective date of this AD using Bombardier Service Bulletin 84-28-10, dated December 6, 2011; or Revision A, dated May 15, 2012; which are not incorporated by reference in this AD.

(o) Other FAA AD Provisions

The following provisions also apply to this AD:

(1) Alternative Methods of Compliance (AMOCs): The Manager, New York Aircraft Certification Office (ACO), ANE-170, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the ACO, send it to ATTN: Program Manager, Continuing Operational Safety, FAA, New York ACO, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; telephone 516-228-7300; fax 516-794-5531. Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local

flight standards district office/certificate holding district office. The AMOC approval letter must specifically reference this AD.

(2) Contacting the Manufacturer: For any requirement in this AD to obtain corrective actions from a manufacturer, the action must be accomplished using a method approved by the Manager, New York ACO, ANE-170, Engine and Propeller Directorate, FAA; or Transport Canada Civil Aviation (TCCA); or Bombardier, Inc.'s TCCA Design Approval Organization (DAO). If approved by the DAO, the approval must include the DAO-authorized signature.

(p) Related Information

(1) Refer to Mandatory Continuing Airworthiness Information (MCAI) Canadian Airworthiness Directive CF-2013-09R1, dated May 28, 2013, for related information. This MCAI may be found in the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2014-0583.

(2) For service information identified in this AD, contact Bombardier, Inc., Q-Series Technical Help Desk, 123 Garratt Boulevard, Toronto, Ontario M3K 1Y5, Canada; telephone 416-375-4000; fax 416-375-4539; email thd.qseries@aero.bombardier.com; Internet <http://www.bombardier.com>. You may view this service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, WA. For information on the availability of this material at the FAA, call 425-227-1221.

Issued in Renton, Washington, on August 15, 2014.

Michael Kaszycki,
Acting Manager,
Transport Airplane Directorate,
Aircraft Certification Service.

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